

Amendments to the Claims:

Please enter the following amendments to the claims, with insertions indicated by underlining and deletions by strikethrough.

1. (previously presented) A chimeric or humanized MN-3 antibody or fragment thereof that binds NCA90 comprising the MN-3 light chain CDR sequences CDR1 (RSSQSIVHSNGNTYLE, SEQ ID NO:1), CDR2 (KVSNRFS, SEQ ID NO:2) and CDR3 (FQGSHVPPT, SEQ ID NO:3) and the MN-3 heavy chain CDR sequences CDR1 (NYGMN, SEQ ID NO:4), CDR2 (WINTYTGEPTYADDFKG, SEQ ID NO:5) and CDR3 (KGWMDFNSSLDY, SEQ ID NO:6).

2-3. (canceled)

4. (previously presented) The humanized antibody or fragment thereof of claim 1, wherein the antibody or fragment comprises the framework (FR) region sequences of the light and heavy chain variable regions of a human antibody and at least one light and heavy chain constant regions of a human antibody.

5. (previously presented) The humanized antibody or fragment thereof of claim 4, wherein at least one of the FRs of the light and heavy chain variable regions of the humanized MN-3 antibody or fragment thereof comprises at least one amino acid substituted with the corresponding amino acid of the murine MN-3 antibody.

6. (previously presented) The humanized antibody or fragment thereof of claim 5, wherein the at least one amino acid from the murine MN-3 antibody is selected from the group consisting of amino acid residue 27, 30, 67, 68, 69 and 94 of the murine MN-3 heavy chain variable region sequence (SEQ ID NO:11) or amino acid residue 20, 22, 39, 60, 70 and 100 of the murine MN-3 light chain variable region sequence (SEQ ID NO:9).

7. (canceled)

8. (previously presented) The chimeric antibody or fragment thereof of claim 1, wherein the

antibody or fragment thereof comprises the amino acid sequences of cMN-3VK (SEQ ID NO:13) and cMN-3VH (SEQ ID NO:15).

9. (previously presented) The humanized antibody or fragment thereof of claim 4, wherein the antibody or fragment thereof comprises the amino acid sequences of hMN-3VK (SEQ ID NO:18) and hMN-3VH (SEQ ID NO:21).

10-13. (canceled)

14. (previously presented) The chimeric or humanized antibody or fragment thereof claim 1, wherein the fragment is selected from the group consisting of Fv, F(ab')₂, Fab' and Fab.

15. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 1, wherein the antibody or fragment is bound to at least one diagnostic/detection agent or at least one therapeutic agent or is part of a fusion protein.

16. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 15, wherein the diagnostic/detection agent comprises a photoactive diagnostic/detection agent, a chromagen or dye, a radionuclide with an energy between 20 and 10,000 keV, a gamma-, beta- or a positron-emitting isotope, a contrast agent, a paramagnetic ion, an ultrasound-enhancing agent, a liposome or a radiopaque compound.

17-28. (canceled)

29. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 15, wherein the therapeutic agent is selected from the group consisting of a radionuclide, boron, gadolinium or uranium atoms, an immunomodulator, a cytokine, a hormone, a hormone antagonist, an enzyme, an enzyme inhibitor, a photoactive therapeutic agent, a cytotoxic drug, a toxin, an angiogenesis inhibitor, a different antibody and a combination thereof.

30. (canceled)

31. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 29, wherein the drug is selected from the group consisting of antimitotic, alkylating, antimetabolite, angiogenesis-inhibiting, apoptotic, alkaloid, COX-2-inhibiting and antibiotic agents and combinations thereof.

32. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 29, wherein the drug is selected from the group consisting of nitrogen mustards, ethylenimine derivatives, alkyl sulfonates, nitrosoureas, triazenes, folic acid analogs, anthracyclines, taxanes, COX-2 inhibitors, pyrimidine analogs, purine analogs, antibiotics, enzymes, epipodophyllotoxins, platinum coordination complexes, vinca alkaloids, substituted ureas, methyl hydrazine derivatives, adrenocortical suppressants, hormone antagonists, enzyme inhibitors, endostatin, taxols and other taxanes, camptothecins, doxorubicin, and a combination thereof.

33. (canceled)

34. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 29, wherein the toxin is selected from the group consisting of ricin, abrin, alpha toxin, saporin, ribonuclease (RNase), DNase I, Staphylococcal enterotoxin-A, pokeweed antiviral protein, gelonin, diphtheria toxin, Pseudomonas exotoxin, and Pseudomonas endotoxin.

35. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 29, wherein the immunomodulator is selected from the group consisting of a cytokine, a stem cell growth factor, a lymphotoxin, a hematopoietic factor, a colony stimulating factor (CSF), an interferon (IFN), a stem cell growth factor, erythropoietin, thrombopoietin, an antibody and a combination thereof.

36. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 35, wherein the lymphotoxin is tumor necrosis factor (TNF), the hematopoietic factor is an interleukin (IL), the colony stimulating factor is granulocyte-colony stimulating factor (G-CSF) or granulocyte macrophage-colony stimulating factor (GM-CSF), the interferon is interferons- α , - β or - γ , and the stem cell growth factor is designated "S1 factor".

37. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 35, wherein the cytokine is selected from the group consisting of IL-1, IL-2, IL-3, IL-6, IL-10, IL-12, IL-18, IL-21, interferon- γ , TNF- α and a combination thereof.

38. (canceled)

39. (previously presented) The chimeric or humanized antibody or fragment thereof of claim 29, wherein the radionuclide is selected from the group consisting of P-32, P-33, Sc-47, Fe-59, Cu-64, Cu-67, Se-75, As-77, Sr-89, Y-90, Mo-99, Rh-105, Pd-109, Ag-111, I-125, I-131, Pr-142, Pr-143, Pm-149, Sm-153, Tb-161, Ho-166, Er-169, Lu-177, Re-186, Re-188, Re-189, Ir-194, Au-198, Au-199, Pb-211, Pb-212, Bi-213, Co-58, Ga-67, Br-80m, Tc-99m, Rh-103m, Pt-109, In-111, Sb-119, Ho-161, Os-189m, Ir-192, Dy-152, At-211, Bi-212, Ra-223, Rn-219, Po-215, Bi-211, Ac-225, Fr-221, At-217, Fm-255 and combinations thereof.

40-47. (canceled)

48. (previously presented) An antibody fusion protein comprising a first humanized or chimeric antibody or fragment according to claim 1, attached to a second antibody or fragment.

49. (previously presented) The antibody fusion protein of claim 48, wherein the second antibody or fragment is a humanized or chimeric antibody or fragment.

50. (previously presented) The antibody fusion protein of claim 48, wherein the second antibody or fragment binds to an antigen other than NCA90.

51. (previously presented) The antibody fusion protein of claim 49, further comprising a diagnostic/detection or therapeutic agent conjugated to the fusion protein.

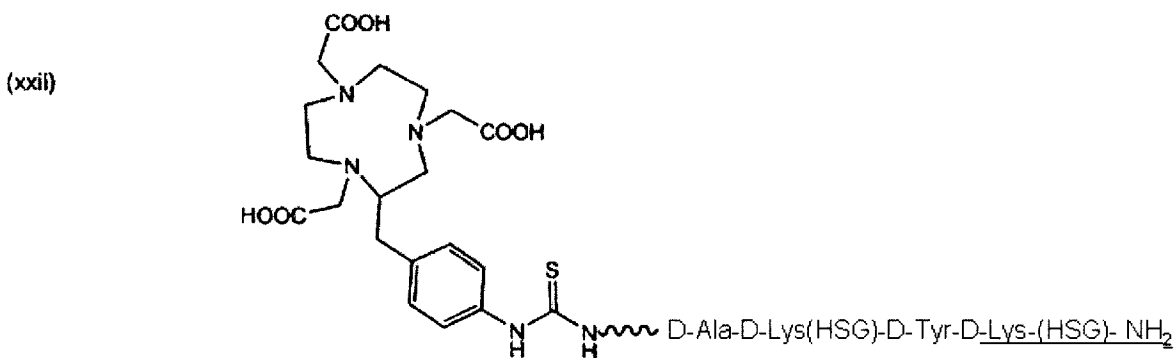
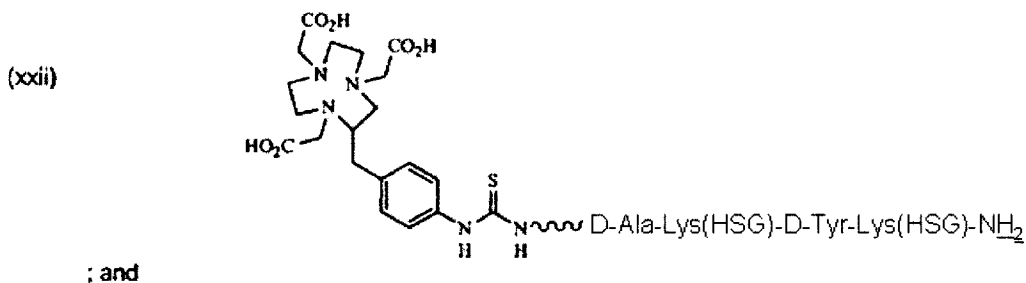
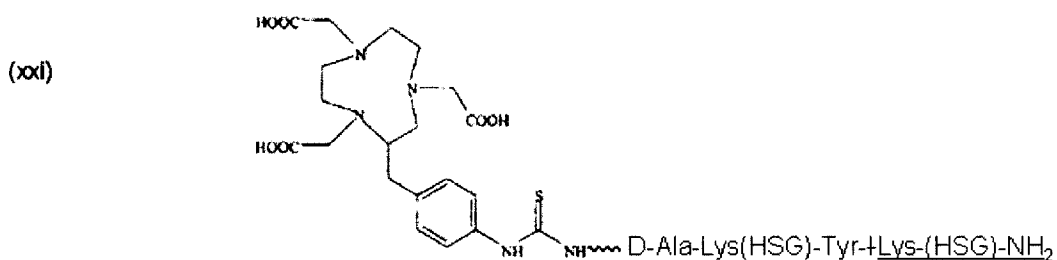
52. (previously presented) The antibody fusion protein of claim 50, wherein the second antibody or fragment binds to a granulocyte-associated antigen.

53-76. (canceled)

77. (previously presented) A kit useful for treating or identifying diseased tissues in a subject comprising: (A) a bi-specific antibody or antibody fragment having at least one arm that specifically binds a targeted tissue and at least one other arm that specifically binds a targetable conjugate, wherein the one arm that specifically binds a targeted tissue is a humanized or chimeric antibody or fragment thereof according to claim 1; (B) a first targetable conjugate which comprises a carrier portion which comprises or bears at least one epitope recognizable by the at least one other arm of the bi-specific antibody or antibody fragment, and one or more conjugated therapeutic or diagnostic agents; and (C) optionally, a clearing composition useful for clearing non-localized antibodies and antibody fragments; and (D) optionally, when the therapeutic agent conjugated to the first targetable conjugate is an enzyme, (i) a prodrug, when the enzyme is capable of converting the prodrug to a drug at the target site; or (ii) a drug which is capable of being detoxified in the subject to form an intermediate of lower toxicity, when the enzyme is capable of reconvertng the detoxified intermediate to a toxic form, and, therefore, of increasing the toxicity of the drug at the target site, or (iii) a prodrug which is activated in the subject through natural processes and is subject to detoxification by conversion to an intermediate of lower toxicity, when the enzyme is capable of reconvertng the detoxified intermediate to a toxic form, and, therefore, of increasing the toxicity of the drug at the target site, or (iv) a second targetable conjugate which comprises a carrier portion which comprises or bears at least one epitope recognizable by the at least one other arm of the bi-specific antibody or antibody fragment, and a prodrug, when the enzyme is capable of converting the prodrug to a drug at the target site.

78. (previously presented) The kit of claim 77, wherein the targetable conjugate is selected from the group consisting of (i) DOTA-Phe-Lys(HSG)-D-Tyr-Lys(HSG)-NH₂; (ii) DOTA-Phe-Lys(HSG)-Tyr-Lys(HSG)-NH₂ (SEQ ID NO: 7); (iii) Ac-Lys(HSG)-D-Tyr-Lys(HSG)-Lys(Tscg-Cys)-NH₂; (iv) DOTA-D-Asp-D-Lys(HSG)-D-Asp-D-Lys(HSG)-NH₂; (v) DOTA-D-Glu-D-Lys(HSG)-D-Glu-D-Lys(HSG)-NH₂; (vi) DOTA-D-Tyr-D-Lys(HSG)-D-Glu-D-Lys(HSG)-NH₂; (vii) DOTA-D-Ala-D-Lys(HSG)-D-Glu-D-Lys(HSG)-NH₂; (viii) DOTA-D-Phe-D-Lys(HSG)-D-Tyr-D-Lys(HSG)-NH₂; (ix) Ac-D-Phe-D-Lys(DOTA)-D-Tyr-D-Lys(DOTA)-

NH₂; (x) Ac-D-Phe-D-Lys(DTPA)-D-Tyr-D-Lys(DTPA)-NH₂; (xi) Ac-D-Phe-D-Lys(Bz-DTPA)-D-Tyr-D-Lys(Bz-DTPA)-NH₂; (xii) Ac-D-Lys(HSG)-D-Tyr-D-Lys(HSG)-D-Lys(Tscg-Cys)-NH₂; (xiii) DOTA-D-Phe-D-Lys(HSG)-D-Tyr-D-Lys(HSG)-D-Lys(Tscg-Cys)-NH₂; (xiv) (Tscg-Cys)-D-Phe-D-Lys(HSG)-D-Tyr-D-Lys(HSG)-D-Lys(DOTA)-NH₂; (xv) Tscg-D-Cys-D-Glu-D-Lys(HSG)-D-Glu-D-Lys(HSG)-NH₂; (xvi) (Tscg-Cys)-D-Glu-D-Lys(HSG)-D-Glu-D-Lys(HSG)-NH₂; (xvii) Ac-D-Cys-D-Lys(DOTA)-D-Tyr-D-Ala-D-Lys(DOTA)-D-Cys-NH₂; (xviii) Ac-D-Cys-D-Lys(DTPA)-D-Tyr-D-Lys(DTPA)-NH₂; (xix) Ac-D-Lys(DTPA)-D-Tyr-D-Lys(DTPA)-D-Lys(TscG-Cys)-NH₂; (xx) Ac-D-Lys(DOTA)-D-Tyr-D-Lys(DOTA)-D-Lys(TscG-Cys)-NH₂;



79-107. (canceled)